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## ADAPTIVE EDGE DETECTION AND ENHANCEMENT

### FOR IMAGE PROCESSING

#### Abstract of the Disclosure

10 The present invention improves image quality by detecting and enhancing edges  
in an image. Images often include blurry or fuzzy edges that can obscure an image. An  
edge is a portion of an image separating two regions of substantially constant image  
intensity. An image can be examined on a pixel-by-pixel basis to find a candidate edge.  
When a candidate edge is found, a determination can be made as to whether the candidate  
edge is a true edge. A true edge can be enhanced by amplifying the image intensity  
15 differences between pixels on the true edge and adjacent pixels not on the true edge. The  
present invention also provides a novel image processing filter for eliminating well-  
known noise from an image. The image processing filter can further improve edge  
enhancement by eliminating such noise prior to the edge detection and enhancement.

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